Semi Truck Driver Falls Asleep While Driving, Crashes and Dies

Incident Number: 11KY009

Photograph of tractor involved in crash. Photograph property of KY FACE.

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Kentucky Fatality Assessment and Control Evaluation (FACE) Program
Incident Number: 11KY009
Release Date: April 20, 2011
Subject: Semi Truck Driver Falls Asleep While Driving, Crashes and Dies

Summary

A 56 year-old male long-haul semi-truck driver fell asleep while driving. It was approximately 4:15 AM and the driver was hauling a load of canned tomatoes. He was approximately 225 miles away from his destination driving in the right hand lane, on a four lane interstate traveling south, when he fell asleep. Upon falling asleep, the unit travelled to the right, across the rumble strip and the emergency lane, behind a guardrail, down an embankment and crashed into a grove of trees. A man driving a car behind the semi truck saw dust rise from the crash, stopped, called emergency medical services and spoke with the driver. The driver stated that he fell asleep. EMS arrived six minutes later, spoke with the driver who was trapped and restated that he fell asleep while driving. The driver died 20 minutes later while emergency services tried to extricate him from the semi.

To prevent future occurrences of similar incidents, the following recommendations have been made:

Recommendation No. 1: Semi tractor-trailer drivers should be trained to recognize signs of fatigue and drowsiness and when to seek appropriate rest areas.

Recommendation No. 2: Employers should establish worker safety programs that include recommendations for addressing sleepiness and fatigue.

Recommendation No. 3: Commercial transportation companies should explore the types of drowsy-type driver alert systems that are available on the market and consider providing their drivers with this type of technology.

Recommendation No. 4: Manufacturers of semi trucks should explore the possibility of incorporating driver alert systems technology (e.g., face recognition, vibrating steering wheels and seats, audible and visual alarms) to assist drivers during driving operations.

Recommendation No. 5: Policy makers should consider using Fatality Assessment Control and Evaluation reports to inform federal and state transportation regulatory policy making activities.

Background

The trucking company the driver was employed by changed its name in November 2010. The company employed four drivers, two power units, hauled general freight, drive/ tow away, and

was for general hire. It is unknown how long the driver had held a commercial drivers' license or if he received any safety training.

Temperatures on the day of the incident ranged from 38º Fahrenheit to 67º Fahrenheit.

Investigation

The Kentucky Fatality Assessment Control and Evaluation program was notified via a private individual of an occupational fatality involving a semi truck driver. A site visit was made the day the crash occurred, and photographs were taken. Employees from a towing company and a representative of the Kentucky Commercial Vehicle Enforcement division were interviewed.

One winter evening at 11:00 PM a long haul semi truck driver driving a conventional 2009 sleeper cab began his route in a northwestern state heading toward a southeastern state. His route would take approximately six days to complete and would take him through eight states traveling back and forth from the north to the south, and ending back in the north.

He had been working his route when he left a northwestern state at an unknown time and headed south with a load of canned tomatoes. The tractor was a 2009 model and was equipped with a sleeper berth. He was pulling a new 2012 model trailer.

At approximately 4:15 AM, the driver was traveling in the right hand lane of a straight stretch of a four lane interstate in a 70 mph zone. The section of interstate was not lit, the pavement was asphalt and dry, and the weather clear. He had traveled approximately 380 miles from his pickup point and had 270 miles to his next destination. The driver fell asleep, drove over the rumble strip on the right side and the emergency lane, traveled behind the guardrail, rolled over onto the passenger side of the unit and slid down an embankment for 310 feet into a stand of trees. The impact of the tractor striking the trees caused the load of tomatoes to shift forward in the trailer and exit the trailer into the tractor.

A car traveling behind the semi saw dust rise from the crash and at 4:15 AM contacted emergency medical services. When the driver of the car arrived at the crash scene he walked down approximately 60 feet of embankment to find the tires still spinning on the trailer, and the driver was awake and cognizant. The driver of the semi told the car driver he fell asleep while driving. Emergency medical services arrived at 4:24 AM and spoke with the semi truck driver who restated that he fell asleep behind the wheel, and gave his name, date of birth, point of origin, and destination. He died 20 minutes later while EMS personnel were trying to extricate him from the tractor.

Extracting the driver from the wreckage was complicated due to the load of tomatoes that had impacted the back of the tractor from the trailer. Upon impact, the cab separated from its chassis. The driver was wearing his seatbelt and the airbag deployed upon impact. Neither speed nor alcohol were suspected as contributing factors in the crash.

Cause of Death

According to the death certificate, the cause of death was due to blunt force trauma to chest as a consequence of single semi-tractor trailer accident.

Recommendations and Discussions

Recommendation No. 1: Semi tractor-trailer drivers should be trained to recognize signs of fatigue and drowsiness and when to seek appropriate rest areas.

Fatigue is one of the main occupational hazards commercial drivers face. Commercial drivers should be educated to recognize signs of fatigue while driving. According to an article, "Driver Fatigue: The Dangers of Driving Sleepy", signs of driver fatigue include daydreaming, straying out of the lane, excessive yawning, feeling impatient and/or stiff, heavy eyes, and reacting slowly. Methods to avoid driver fatigue include being well rested, getting enough sleep, taking breaks every two hours where the driver may take a nap, eating a snack, avoiding consumption of alcohol, having a driving plan, and staying hydrated.

Recommendation No. 2: Employers should establish worker safety programs that include recommendations for addressing sleepiness, fatigue, and maintaining proper rest.

Companies should assist drivers in fighting fatigue by establishing polices requiring drivers to stop every 100 miles driven or every two hours driven for a rest break. When hauling hazardous materials, company policy should require rest breaks more frequently. Also to help fight fatigue, companies should consider varying drivers' routes to keep drivers from becoming inured to routine. To reduce drowsiness, semi truck drivers should also refrain from taking cold, flu, or allergy medications with diphenhydramine while operating a commercial motor vehicle.

Every driver should have a route plan that incorporates appropriate rest areas to give the driver access to meals, a safe quiet place to nap, and to be able to stretch or walk to stimulate circulation. Drivers should be prepared with maps of designated rest areas that accommodate semi truck drivers along their routes. The plan should also provide information on roadside assistance if needed.

Recommendation No. 3: Commercial transportation companies should explore the types of drowsy-type driver alert systems that are available on the market and consider providing their drivers with this type of technology.

There are several drowsy-type driver alert systems on the market to help drivers recognize when they are becoming drowsy. The devices are generally worn behind the ear, detect head movement, and produce an audible alarm when the driver begins to nod. The costs for these devices range from $6.95 and up.

Recommendation No. 4: Manufacturers of semi trucks should explore the possibility of incorporating driver alert systems technology (e.g., face recognition, vibrating steering wheels and seats, audible and visual alarms) to assist drivers during driving operations.

The automobile industry is beginning to integrate driver alert systems in their vehicles to help alert drivers when they are falling asleep. This technology includes face recognition that maps the driver's face and alerts the driver that he (she) is starting to doze. Alerts include vibrating steering wheels and seats, audible alarms, and blinking visual alarms on the vehicle dash.

Recommendation No. 5: Policy makers should consider using Fatality Assessment Control and Evaluation reports to inform federal and state transportation regulatory policy making activities.

Sleepiness was determined to be the primary contributing cause of this fatal semi truck collision. It is often difficult to prove sleepiness as the primary cause of a fatal collision but in this report, the driver stated to both a witness and EMS personnel that he fell asleep at the wheel.

Keywords

Fatigue
Sleepiness

References

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Acknowledgements

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Front section of semi. Photograph property of KY FACE

Load of canned tomatoes ejected from semi. Photograph property of KY FACE.

Trailer involved in crash. Load was ejected out of the top and into the cab. Photograph property of KY FACE.